# MANUFACTURING METHOD AND BONDING APPARATUS FOR LIQUID CRYSTAL DISPLAY (LCD) DEVICE


## ABSTRACT

A manufacturing method and a bonding apparatus for a liquid crystal display device is provided for that makes it possible to expel remaining bubbles from a liquid crystal and to bond an array substrate and a color filter substrate while maintaining their positional relationship. In a step for bonding an array substrate with a liquid crystal applied thereto and a color filter substrate, vacuum holding of only a central retaining region of an upper vacuum chuck of the bonding apparatus is stopped. This causes the central portion of the color filter substrate to come in contact with the array substrate due to its own weight. The contact region is pressed by a holder to secure the positional relationship between the array substrate and the color filter substrate. Thereafter, with the elapse of time, the upper vacuum chuck increases the retaining region for which a vacuum retaining operation is stopped so as to expand the area of contact between the array substrate and the color filter substrate. As a result, bubbles in the liquid crystal are expelled externally.